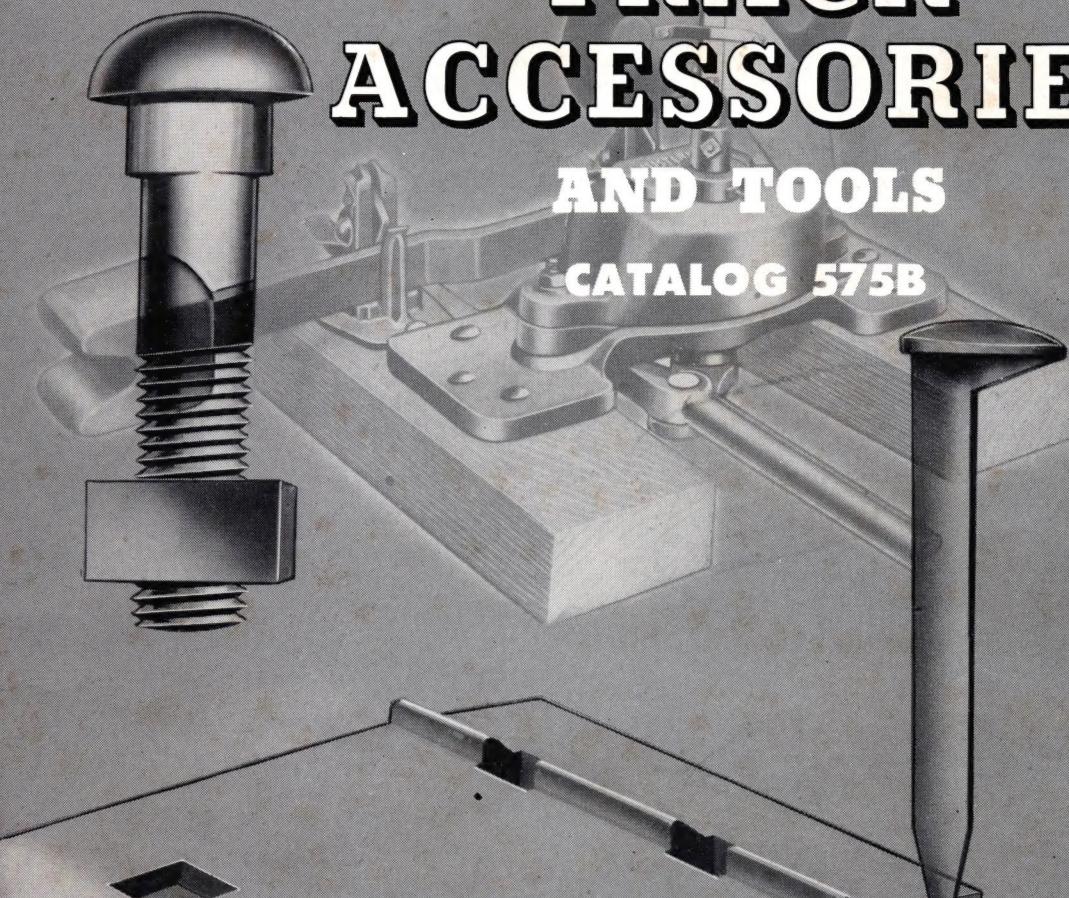


"FASTER
FROM FOSTER"

**TRACK
ACCESSORIES
AND TOOLS**

CATALOG 575B



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Pipe and Pipe Fabrication — Wire Rope and Slings.



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Among Foster's large warehouse stocks can usually be found anything you use in track equipment or any special need you may have. We'll match sizes and all specifications to meet your exact requirements. Try us for service.

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Included in this catalog are six pages of information devoted to craneway installation and other valuable data. Remember — thoroughly trained and experienced help is yours for the asking . . . from Foster . . . on any rail or trackage problem. Please call on us for this counsel — no obligation.

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Foster guarantees that all material is rigidly inspected before shipment. If on arrival, the material is not satisfactory to you, it is returnable, with the freight paid both ways at our expense.

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COMPROMISE SPLICE BARS

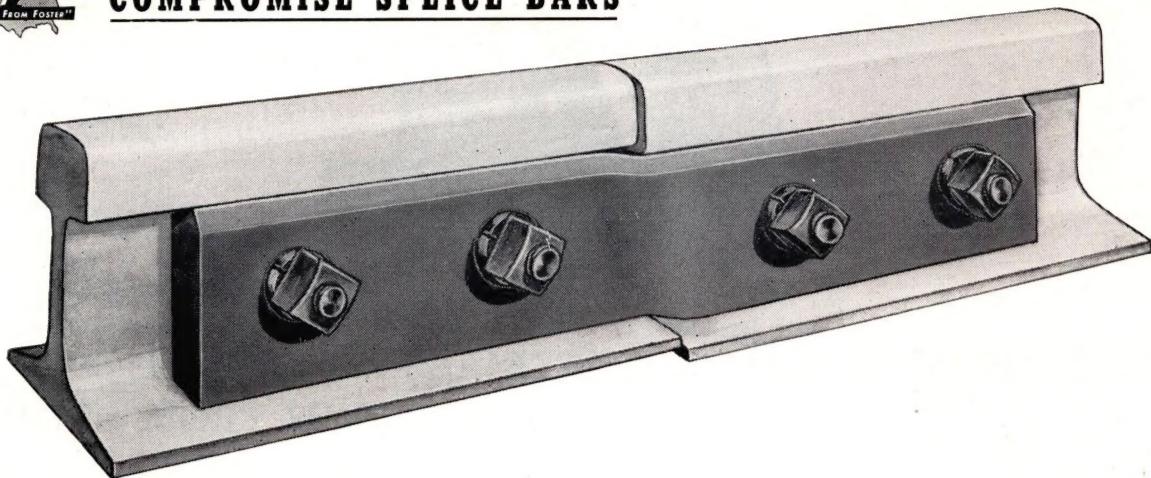


FIGURE G — FOSTER SPLICE BARS

These splice bars — engineered, developed and steadily improved through experience and use over the last 50 years, will adequately take care of the entire range of rail sizes. They are inexpensive, easy to install and can be shipped on short notice by Foster.

Foster offers the following specialized services, by trained personnel with years of track work experience: heavy rolled steel of maximum thickness, is accurately cut into bars to fit each combination of rail sections; top and bottom edges are bevelled to the exact angle of the rail base and head to provide adequate take-up for adjustment for wear; tops of bars are chamfered to allow for wheel clearance; bars are then bent on heavy-duty equipment to bring rails to exact gauge. Each compromise bar in a pair is bent differently for the gauge side and the field side of joint to provide proper bearing. This design assures maximum bearing surface, long life and minimum maintenance. When bars are required for joints

where rail heads are worn, give us full information, we can supply them to compensate for such conditions.

Foster stocks hundreds of sets of templates and dies to cover every conceivable combination of rail sections. This, plus substantial inventories of heavy steel plate always on hand for every type of bar, assures fast service on any quantity of bars.

Compromise splice bars are furnished in right hand and left hand pairs. This is determined by location — when looking from the heavier rail to the lighter rail. Bars are normally punched with oval holes for track bolts or may be drilled for machine bolts. They can be supplied in any lengths, for every combination of rail drilling with 4, 5 or 6 holes, to meet your specific requirements. When ordering, specify the rail sections to be joined; exact spacing of holes, elevation, size of the holes; and size and type of bolts to be used. For detailed ordering information, refer to diagrams on page 14B.

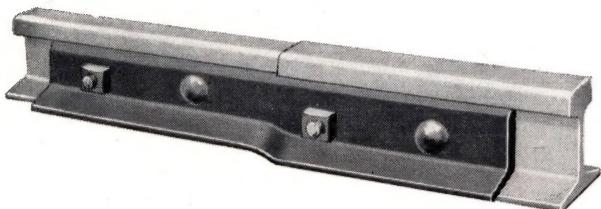


FIGURE H — COMPROMISE ANGLE BARS

Used where variation in rail heights is not too great. They are die forged and machined to fit each individual order. When ordering, furnish same information as shown under Figure G.

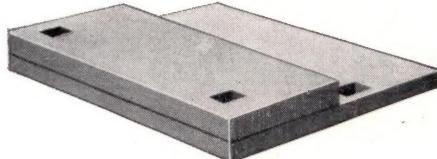
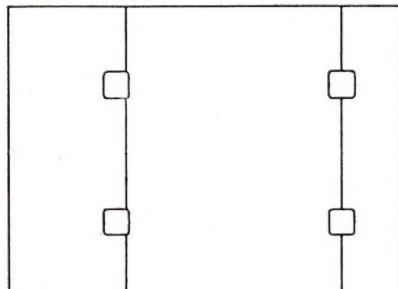


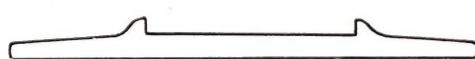
FIGURE GS — STEP CHAIR

Used with compromise bars where variation in heights of the two rails is more than one-half inch, provides proper support and alignment on gauge line for the smaller rails.

ANGLE BARS AND SPLICE BARS — Refer to page 19B.



SINGLE SHOULDER



DOUBLE SHOULDER

HOW TO ORDER

To insure prompt shipment of tie plates, correctly fabricated to meet your requirements, give the following information:

Width of Rail at base and Rail Section.

Punching — Number of spike holes, and their locations.

Length and Width of tie plates, and whether Single or Double Shoulders are required.

Flat Tie Plates without cant are usually furnished for industrial application.

A dimensioned plan view of the tie plate such as that shown at the right is a convenient method for sending the required information.

The use of Tie Plates on every tie is a definite economy, recognized by all engineers. Tie plates offer many advantages:

Distribute the load from the rail to the tie, providing uniform as well as increased bearing for the rail on the tie, retaining a true bearing without movement of any kind.

Give the rail the proper cant, when required, for curves, and other traffic conditions.

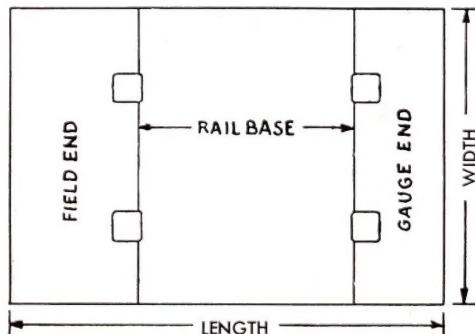
Hold the rail rigidly to gauge, for which purpose a bearing shoulder for one or both sides of the rail base is now afforded.

Protect the ties against undue wear and effect longer life of the ties in service.

Foster Tie Plates are designed for modern practice and can be supplied to A.R.E.A. specifications when ordered. They are carefully fabricated by correct manufacturing methods. As illustrated at the left, plates are available to fit various traffic conditions on rail from 30 lb. to 155 lb., having either single or double shoulders, flat or canted rail seat, and punched to meet your requirements. Plates can be shipped from stock in any quantity, are normally wired together in uniform bundles not exceeding 100 lbs. for easy handling.

APPLICATION OF TIE PLATES

Care should be taken to make sure that the plates have a full even bearing on the tie, that the track is in correct gauge before spiking, and that the shoulder of the plate rests against the base of the rail along the full width. The shoulder of the plate must not be permitted to remain under the base of the rail. Rough and crooked ties must be adzed to give a level bearing, and all old spike holes plugged to assure longer life.





BUMPING POSTS

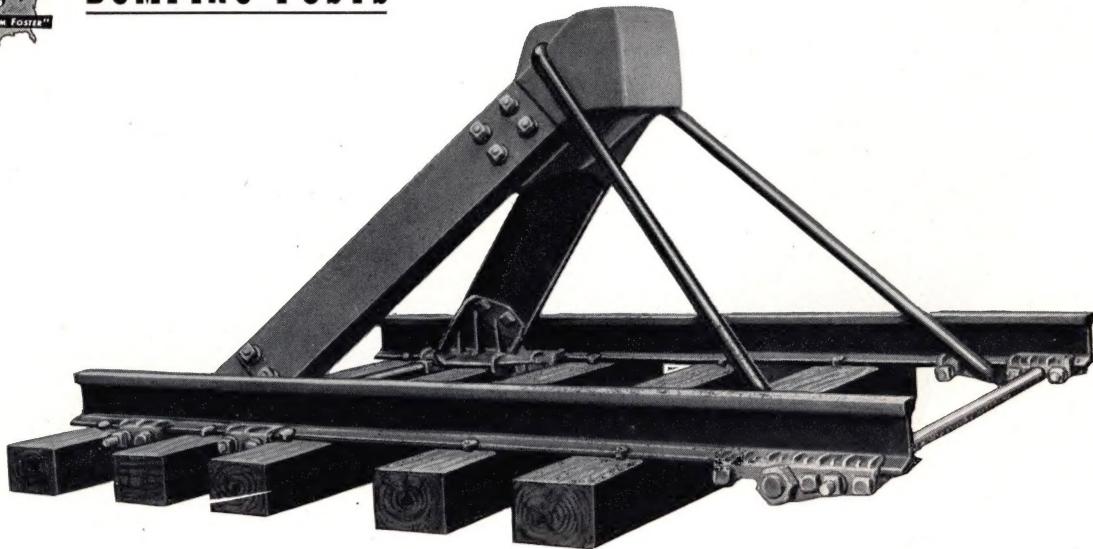


FIGURE 306

A clamp type steel post, outstanding in providing protection in railroad yards, industrial plant sidings and coal yards. Comparatively light in weight, yet practically indestructible, this post will not hump the track and requires little attention when used in ordinary everyday service. If struck a severe blow, the impact is partially absorbed by the shoe castings sliding slightly on

the rail. This feature eliminates much need for the replacement of parts. Turnbuckle at the head provides adjustment for equalizing strain on the front member. This post is simple and easy to install, since no excavating or drilling of rails is necessary. Clamps are designed to fit a wide range of rail sizes. When ordering, specify the weight of rail to be used. Post weighs 800 lbs.

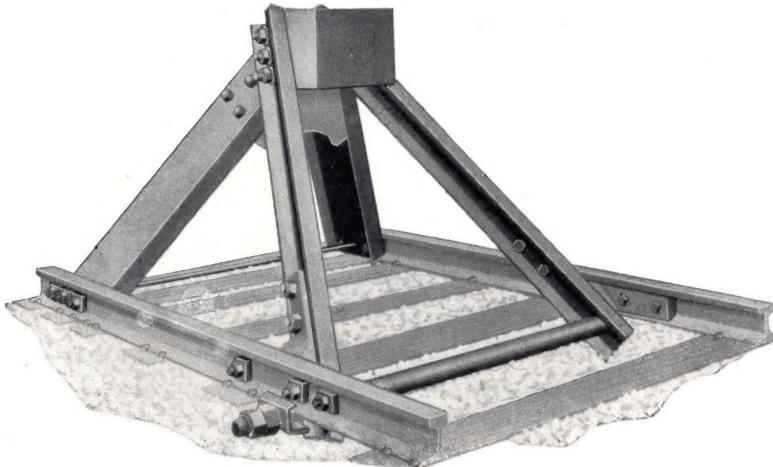


FIGURE 305

Maintains proper balance between tension and compression strains and affords maximum strength. Impact shock is transmitted downward to the ground, preventing injury to the post or to the rails. Easily installed above the ground, bolted to rails with standard track bolts — no excavating is required. Recommended for use with heavy rolling stock, complete post weighs 1300 lbs. When ordering, specify weight or section of rail to be used.

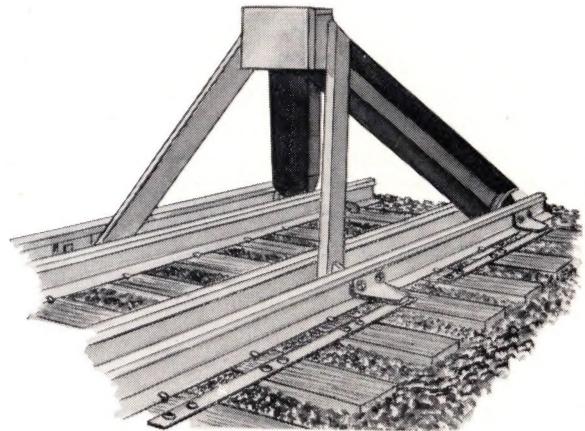


FIGURE 307-HWA

All steel, of extra heavy construction, the two triangular welded units carry the shock of impact to the ties, without distorting the bumping post or the track. Design provides for the use of middle rails to form a solid foundation and to strengthen the track. Furnished with double strength, chrome nickel, heat-treated bolts. This model is recommended for rails $5\frac{3}{8}$ " to 8" high, weighs 1635 lbs.

Other designs of Bumping Posts can be furnished on request to meet specific requirements.

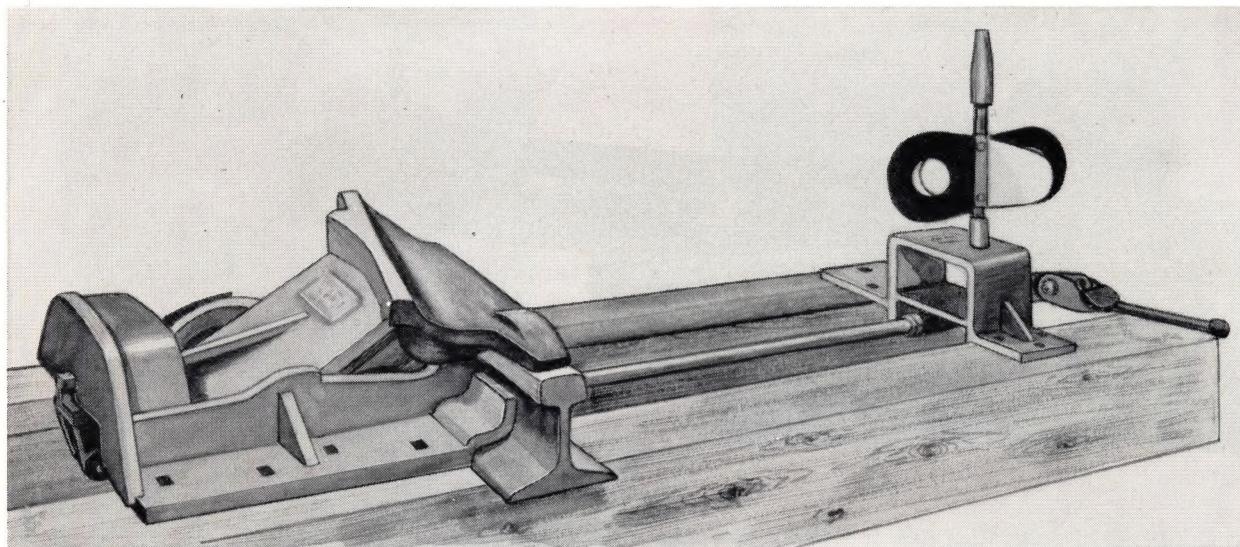


FIGURE 104-H

Forged and welded rolled steel, for use with heavy equipment. Hardened malleable iron shoe is 30" long, covers 3½" wide rail head and designed so that wheel is not derailed until it reaches end of the shoe, pulling wheel off opposite rail less abruptly. Operates smoothly through even, straight motion to and from the rail, and is available in sizes 4, 5, 6, 7 and 8 for installation with rails of various heights. When ordering, specify rail section and whether right hand, left hand or double end model is required.

FIGURE 105-H

Operating target stand shown above can be supplied to fit all sliding type derails. Stand mechanism is gearless, threaded eyebolt provides adjustment for throw, lever swings through 90° to open or close derail. Connecting rod is also adjustable by means of a screw jaw at each end fitted with a jam nut. Standard connecting rod places lamp tip 3'6" from gauge of rail, other sizes can be furnished when required. Stand can also be furnished without target and with or without lamp tip as required.



FIGURE 106-Q

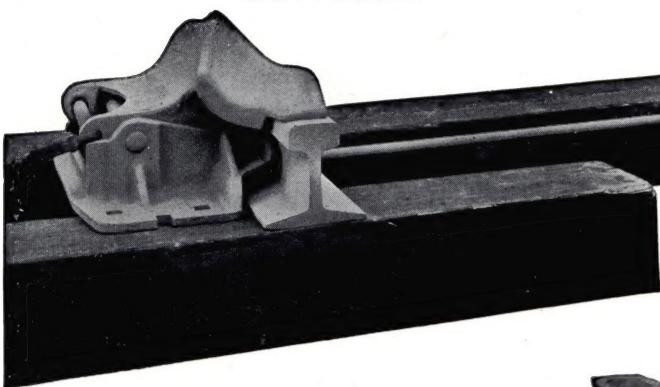
A heavily constructed, sliding type derail, in one standard model, automatically adjustable to fit all rail sections. Wide base plates, cast integrally with the housing, extend under the rail base, making an exceptionally strong installation. Adding or shimming the ties is eliminated. Blocks can be furnished 20¾" or 26" long in right or left hand models and 32" long in the double end design. When required, derail can be used with operating target stand mechanism having action similar to Figure 105-H shown above.



DERAILS—HAND THROW TYPE

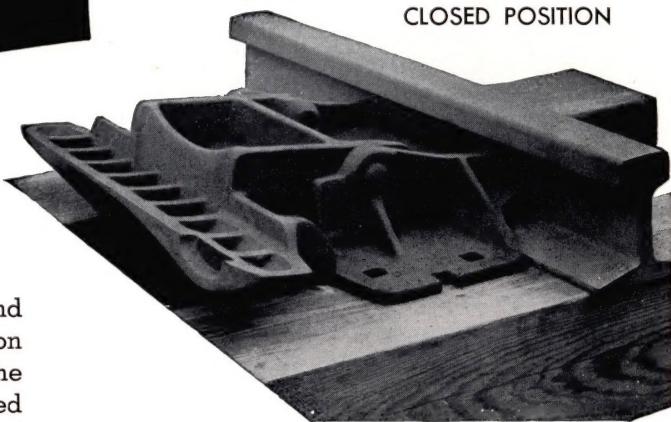
FIGURE 107-H DERAIL
(Without Target Stand)

OPEN POSITION



108-H
TARGET STAND
(Separate Item)

CLOSED POSITION



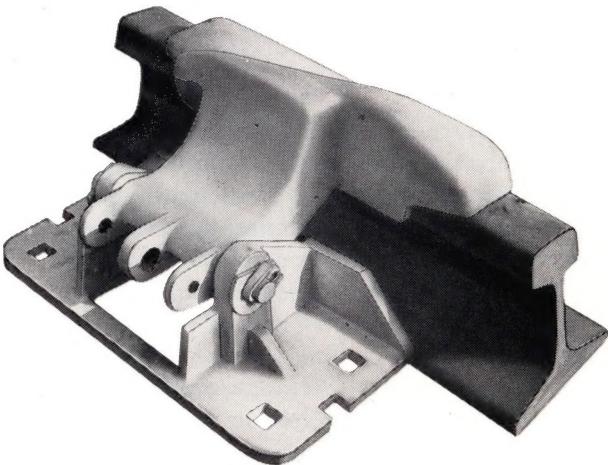
FIGURES 107-H and 108-H

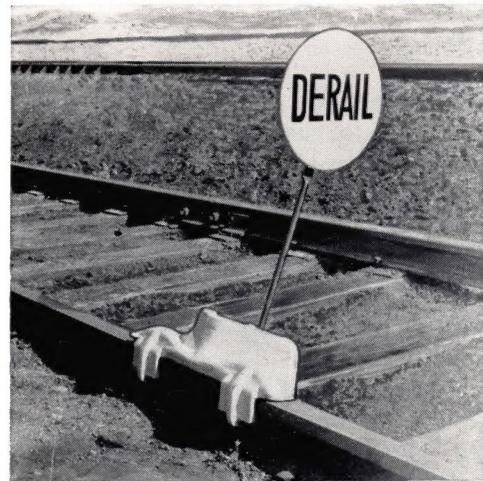
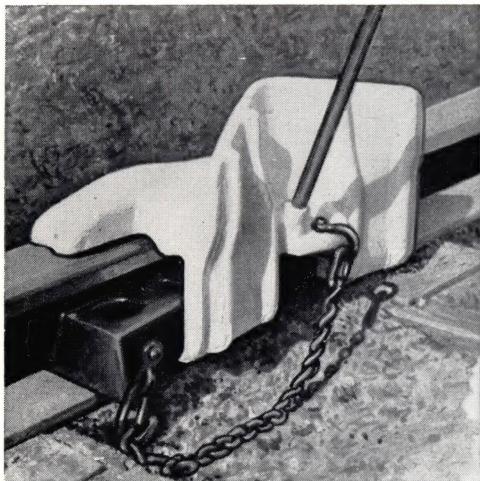
Simplified, rugged construction of this hand operated derail consists of two parts, hinged on a sturdy, riveted steel shaft. Designed so that the thrust of the wheel, striking the derail is carried direct to the ties through the front side walls of the guide box which extend close to the rail. The derail block or shoe guides the wheel off the rail smoothly and without cramping, and with no damage either to the wheel or to the derail. Derail can be padlocked to hold the block close to the rail head of any height rail and lug is provided for connecting rod of target stand. The derail is easily thrown using a convenient hand-hold recessed in the block. When ordering, specify whether right hand or left hand models.

Target stand can be connected to the derail which indicates whether derail is in open or closed position but does not operate the derail. Movement of the stand is transmitted through the connecting rod and turns the target and lamp staff. The crank is a drop forged eyebolt threaded to provide adjustment for the throw of the derail and base is designed to prevent vanes moving through more than 90°. Can be installed with any derail similar to Figures 107-H and 109-Q.

FIGURE 109-Q

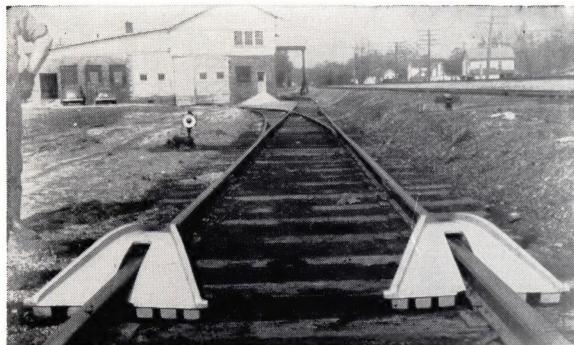
This hand throw derail is designed for use with rails from 40 to 85 lb. section. Adjustment for various heights is made by raising or lowering the pivot rod connecting the block and supporting bracket. Three lugs permit padlocking derail in position and attaching connecting rod of target stand. Recessed hand-grip is provided in the block for ease in throwing the derail. When ordering, specify whether right or left hand models are required.



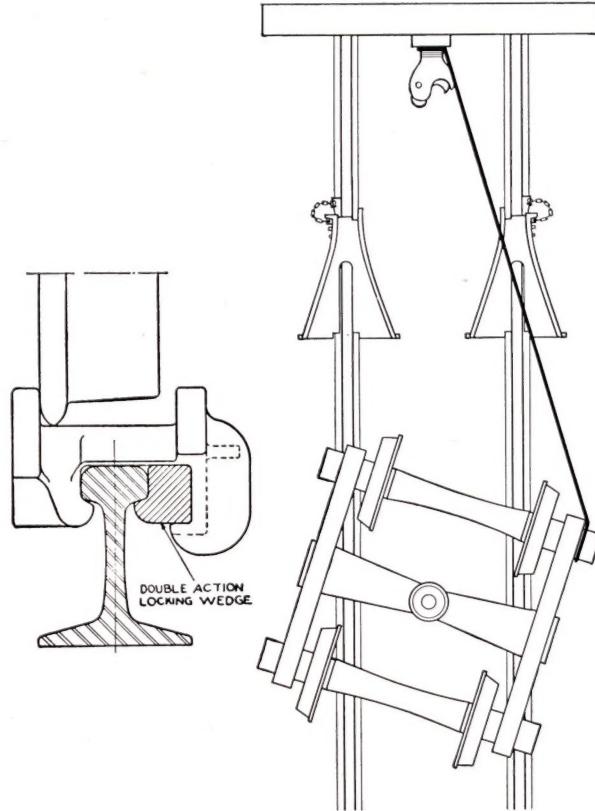
**FIGURE 110-N**

An effective safety device recommended for use in rail yards, spurs, etc., where uncontrolled cars or switching movement may endanger workmen. Particularly adapted to mine use for protection at room necks and entries. Easily portable, it requires no spiking, its wedge type construction

securely locks it to the rail. Shoe is designed to derail in either direction, right or left hand. Size 1 is 22" long, weighs 74 lbs. and is adjustable for use with 60 to 130 lb. rail. Size 2 is 18" long, weighs 40 lbs., is designed for use with lighter rail from 20 to 60 lb.

**FIGURE 302-N—RERAILER**

Strongly built of special alloy steel, rerailers straddle the rails and are held securely by locking cam or wedge on outside of track, no spiking or blocking is required. Designed particularly to eliminate make-shift and dangerous blocking, they will rerail wheels from either side. Broad end rests on base of rail or ties, allowing wheel to ride up the gradual slope and be guided back onto the rail safely and quickly. Cam type is furnished in sizes 2, 3, 3½ and 4 for rerailing equipment weighing 10 to 40 tons on 16 lb. to 75 lb. rail. Wedge type in sizes 5, 5½ and 6 is designed for rerailing equipment up to 300 tons on heavy rail up to 155 lb. section.

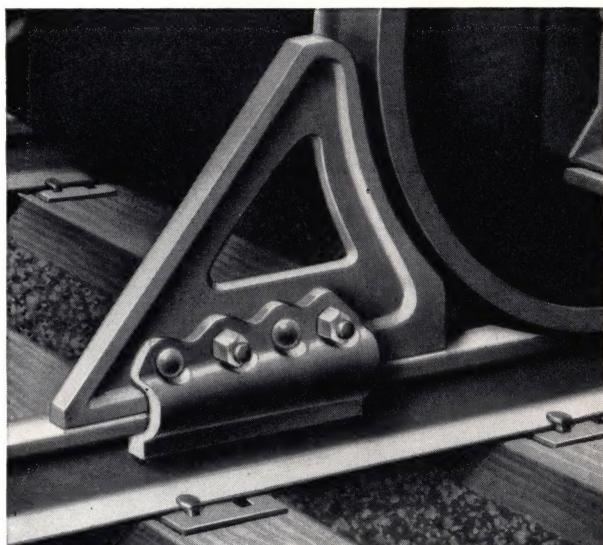
CAR AND LOCOMOTIVE—RERAILERS



CAR STOPS

FIGURE X

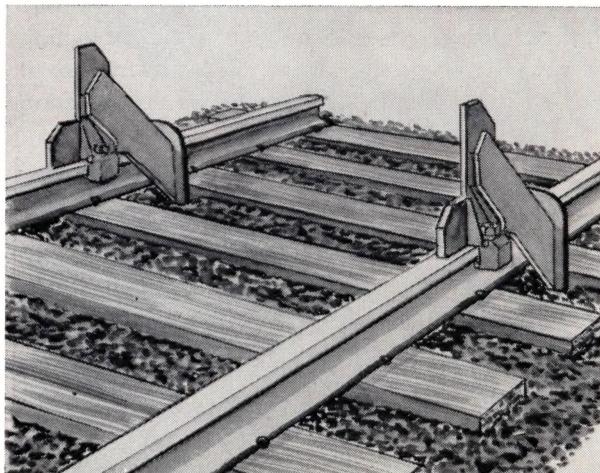
This stop is fabricated of high grade cast steel and designed for use as a semi-portable stop when heavier, permanent bumping posts are not required. It is simple in construction, consisting of car stop casting and two clamp type wedges which bolt through casting and securely lock it on the rail. When wheels strike the stop, shock is carried down to the rail and is absorbed by the double wedge feature. Can be installed easily in a few minutes since rail drilling is eliminated and ballast and ties are not disturbed. This model is suitable for use on all tee rail sections from 56 lb. to 155 lb. Stops weigh 250 lbs. per pair.



CUSHION WHEEL STOP

FIGURE XH

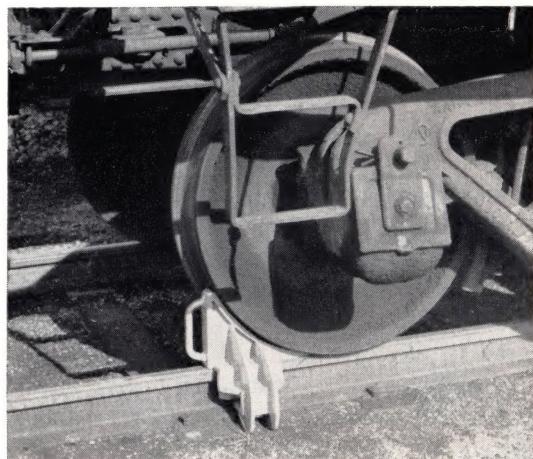
Designed for use at speeds no more than that of flat switching, stop rests on the rail head and impact shock of the wheel is cushioned and absorbed by a slight movement of the impact tie in the yielding ballast. Usually installed about three tie spaces from end of track, the stops bolt and clamp around the rail head, no drilling of the rails is required. One model will fit all sizes of medium rail from 4 to 7" in height.



PORTABLE CAR BLOCK

FIGURE XN

A practical safety device for use where cars are loading or unloading. It is made from heat treated alloy steel castings and drop forgings and is easily and quickly installed. Block is locked to rail by positive cam action, makes it impossible for the car to move. Available in two sizes to fit all rail sections from 40 to 175 lb. Size 1 weighs approximately 25 lbs., size 2—35 lbs.



PORTABLE RAIL CLAMP



FIGURE XM

The body of this clamp is a casting of electric furnace steel and the lugs and locking key are drop forged. It is easily applied, the clamping action quickly locks it to the rail and prevents movement of the wheel. An excellent safety device for use wherever cars must be held in one position. One model will fit new or worn rail of any size from 40 to 175 lb. section.



FIGURE 308-M

CAR MOVER

FIGURE 308-M

The head of this mover is short and compact, and holds the spurs securely without shearing stress on the bolt. The spurs are so placed for safety to straddle the rail head and grab the corners of the rail only, not the smooth top of the rail. This assures positive grip on rails of any width and, with the weight in the base, the mover follows and rides the rail without slipping. Weight with handle, 16 lbs.

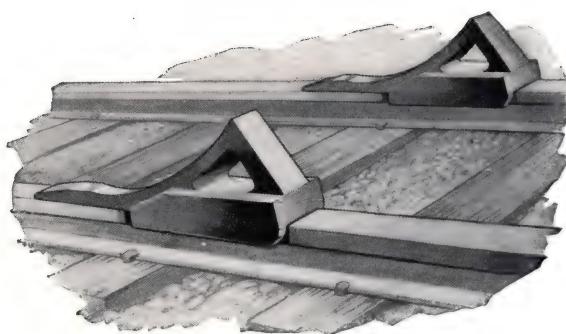


FIGURE 238

FIGURES 238 AND 238-N

Used for plowing down ballast and clearing cinder tracks. For this, a tie or heavy board is placed in front of the skate which rides on the rail head, and the ballast or obstruction is effectively cleared from the track. This eliminates the possibility of "flat" wheels which often result, when the wheels

RAIL SKATES

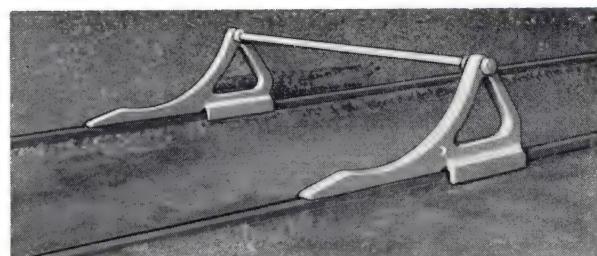


FIGURE 238-N

are chained to effect the same purpose. Skate can also be used as a buffer or brake to stop runaway cars where sidings are on a grade, on coal trestles or where flying switches are used in gravity hump yards. Either model will fit all rail sizes. 100 lbs. approximate weight per set.



FOSTER "Single-Source" Facilities Offer *Everything for Crane Runways . . .*

Adequate stocks of all types of accessories for industrial crane runways are always on hand. Crane Rails, Angle Bars, Track Bolts, Foster Standard Crane Stops, Rail Clips and Clip Bolts, can be shipped immediately. Hook and Anchor Bolts, Bearing Plates, Crane Stops, Compromise Bars and other accessories can be quickly fabricated in any quantity to your specifications.

Foster stocks carefully specified steel bar and plate, and bolts, nuts and lock washers in a wide variety of sizes, in substantial quantities at all times. Experienced personnel, backed by many years of practical crane-runway work, assures completion of orders to your exact specifications. Foster maintains shops equipped with specialized,

heavy-duty hydraulic and mechanical equipment for cold or hot bending of bolt stock and plate — complete facilities for cutting, welding, drilling, punching, threading and heat treating. (Foster Rails and Pipe Catalogs offer further description of these specialized services. Write your nearest Foster office if you do not already have them.) Complete material stocks and adequate fabricating facilities assure fast and accurate delivery in any quantities from Foster — the "Single-Source" service.

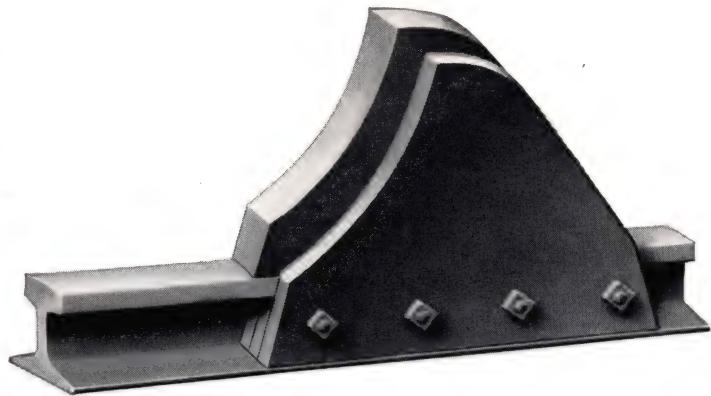
Refer to Foster Rails Catalog number 575 for full size diagrams and complete details of 104, 105, 135, 171 and 175 lb. Crane Rails and matching Splice Bars.

LB FOSTER CO. RAILS • SWITCH MATERIAL • TRACK ACCESSORIES

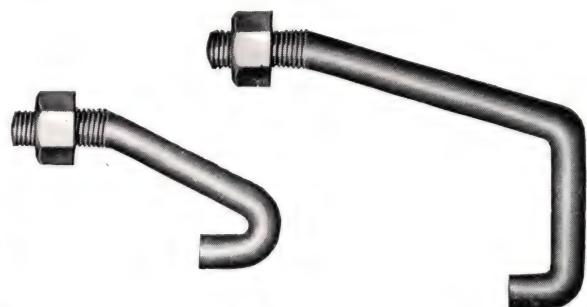
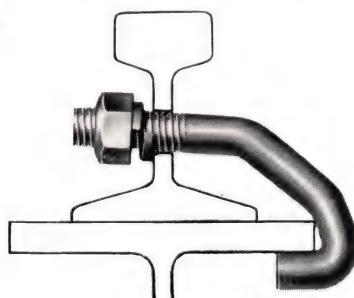


CRANE STOPS

Foster Crane Stops are fabricated of heavy welded plates of properly specified steel making an exceptionally heavy and sturdy construction. The Foster Standard Design will fit every size crane rail and can be shipped immediately from stock. Every pair is complete with bolts, lock washers, nuts and filler blocks drilled to fit. They are easily installed by fitting the stop over the rail, inserting the filler blocks and fastening with four bolts. Special stops can be quickly fabricated to meet specific needs. When ordering, specify the rail section, exact drilling requirements and diameter of wheels used on the crane.



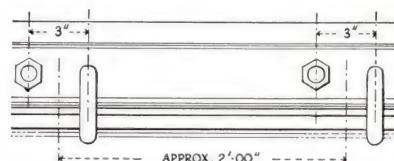
HOOK BOLTS—ANCHOR BOLTS



Hook Bolts are used to securely lock the crane rail to its supporting member and are tailor-made to meet your specific needs. Foster can fabricate any quantity, from $1/2''$ to $1''$ diameter, in any length, to any shape, on specially designed high-speed hydraulic bending machines. Bar stock is carefully specified and adequately stocked in a wide range of sizes at all times. Foster maintains its own facilities for die-making, hot or cold bending, threading and heat treating — assuring fast service, exactly to your specifications.

When ordering, please give the diameter, spacing and elevation of holes and the size of rail being used. A cross-section sketch like the one above is very helpful in noting your specifications.

As shown below, hook bolts are installed in pairs with the alternating hooks reversed. Bolts should be $3''$ apart and the distance between the center lines of each pair of bolts usually measures $2'-0''$ but may vary to maximum $3'-4''$ at the rail splice.



Anchor Bolts can be furnished in any design from $1/2''$ to $1''$ diameter and in any lengths for use in concrete work or special applications. Foster offers fast service on any special designs.

BEARING PLATES

Particularly for crane runways, plates are accurately cut and drilled for anchor bolts and furnished complete with necessary bolts, nuts and lock washers to your specifications. Foster stocks

steel plate in a wide range of thicknesses for this purpose and has adequate equipment for cutting, drilling or punching. Assures immediate delivery, rounding-out Foster's "single-source" Service.

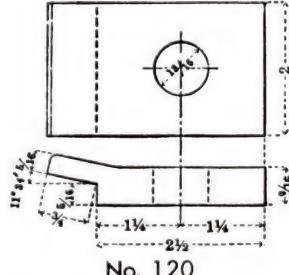
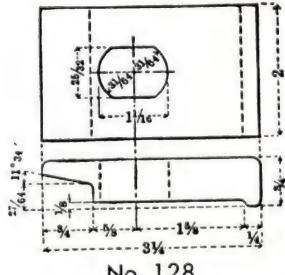


CRANE RAIL CLIPS

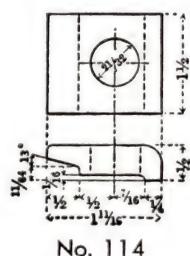
Used to bolt the crane rail to its supporting member by fitting over the base of the rail. The sizes listed are designed particularly for use with various crane rail sections. Clips can be furnished with standard 25/32" diameter holes or with holes of a size consistent with the section.

Clip	Weight in Lbs.			Clips for Use With	
	No.	Per Ft.	Finished	Tie Sections	Rail Sections
128	6.0	0.87		M21, M25, M29	100 to 60 lbs., A.R.A-B.
120	5.6	0.81		M18, M20, M27	50 to 25 lbs., A.S.C.E. & A.R.A.
114	2.24	0.24		M24	50 to 20 lbs., A.S.C.E.
106	7.2	1.05		M21, M25, M29	100 to 60 lbs., A.S.C.E.
103	4.3	0.58		M21, M25, M29	100 to 55 lbs., A.S.C.E.
CR175	11.2	2.0		175 lb. Crane Rail
CR135	11.2	2.0		135 lb. Crane Rail
CR128	6.5	1.15		105 lb. Crane Rail
CR62	6.67	1.2		104 lb. Crane Rail & 131 lb. A.R.E.A.

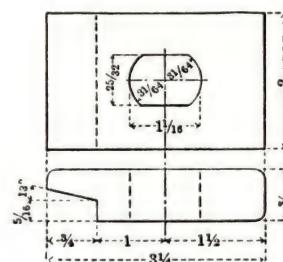
SPECIAL MACHINE BOLTS, with square heads and square nuts are recommended— $\frac{3}{4}'' \times 2\frac{1}{4}''$ for Clips No. 128, 106, 103; $\frac{5}{8}'' \times 2''$ for Clip No. 114.



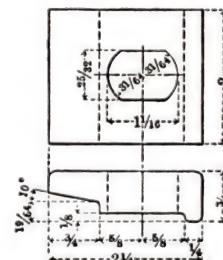
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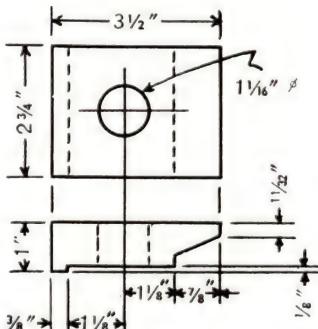
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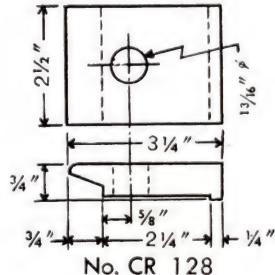
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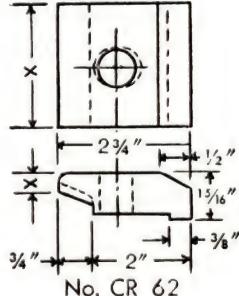
No. 103



No. CR 175



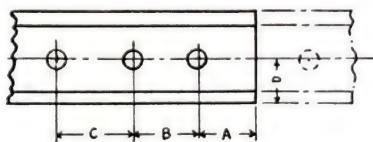
No. CR 128



No. CR 62

HOW TO ORDER CRANE RAILS

Identify Rail Section — Refer to Foster Rail Catalog number 575, or make an impression of the rail end on a piece of paper.

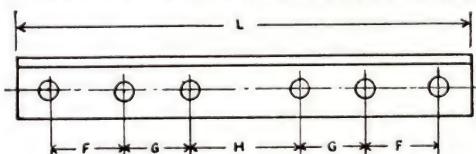


SPECIFY RAIL DRILLING — It is important that the following information be given:

- A — End of rail to center of first hole.
- B — Center, first hole to center, second hole.
- C — Center, second hole to center, third hole.
- D — Diameter of hole and its elevation (location above rail base to center line of hole).

To insure prompt and accurate service:

Identify rail section, specify drilling, diameter and elevation of holes and bolt size.



Foster will punch splice bars to accurate fit when the following information is given:

- F — Center of first hole to center of second hole (and fifth to sixth hole).
- G — Center of second hole to center of third hole (and fourth to fifth hole).
- H — Distance between centers of center holes, and elevation.
- L — Length of bar.

GAUGE RODS—TRACK BRACES



FIGURE 300



FIGURE 300-N

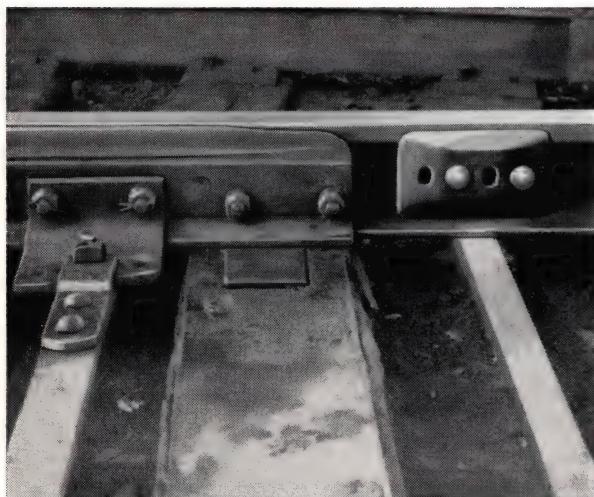
FIGURE 300

Foster Rods are the latest improved type and are made for heavy service at moderate prices. They have a solid bent hook on one end and heavy adjustable clamp on the other end; the rod is $1\frac{1}{4}$ in. diameter. Gauge rods should be used in every place where there is difficulty in holding track to gauge. Use of such rods is imperative on curves where fastening a rod on either side of the outside joint in curved track will prevent the joint from "kicking out" and will save cost of regauging track and cost of renewal ties. On straight track, it will be found economical to install gauge rods, spaced 5 ties apart. This will reduce cost of track maintenance to absolute minimum. At switches, two gauge rods should be placed in front of the switch points to save expense of regauging track and to lengthen life of the switch ties.

FIGURE 300-N

Track braces increase safety where track strains are heavy, will prevent rails from tilting or turning over under heavy traffic and will hold them rigidly. They also prevent the common trouble of track spreading at a switch point and serve as rail anchors, prevent lifting or crowding track spikes and thus eliminate re-spiking. Can be used where ties have become rotted so that they will not hold spikes, to hold track to gauge until ties can be replaced. Connecting rods are of such length that gauge of track can be increased or decreased as required.

Both models can be quickly installed and can be used again in other locations. Furnished for use with all rail sections from 16 lb. to 130 lb. When ordering, specify size of rail and gauge of track and whether insulated or non-insulated rods are required.



SWITCH POINT PROTECTOR

FIGURE 303

A manganese steel, reversible switch point protector made for any size rail. Placed directly ahead of the switch point the impact of passing wheels is completely absorbed and the service life of the switch point increased from 5 to 10 times longer. It takes a "gang" to replace a costly switch point, one man can replace this protector—the reversible feature is an added economy.

When placing the protector on the rail, the distance from the switch point is usually 2 inches, but may be varied. When ordering, state size of rail with which protector is to be used.



TRACK JACKS



FIGURE 117

FIGURE 101

FIGURE 1-D

Similar in design to Figure 117 but is double acting and has hand-set tripping device which enables operator to work faster because the load is raised on both the upward and downward strokes. Tripping device is quick and positive — has hook trip suspended on socket side of lever.

FIGURE 517-B

Single acting jack designed specifically for surfacing and lining heavy track and for fish plate installations. Grooved top of jack fits under the ball of the rail or permits pushing on the bottom of rail. Both upper and lower pawls are spring actuated. Low 11" height and light weight make it easy to carry and spot.



FIGURE 514-MT

FIGURE 2 x 10

FIGURE 117

Single acting, designed for surfacing and lining rails. Safe, easy to spot and simple to operate, has foot lift and thumb guard. Spring actuated pawl permits quick, positive tripping, the upper holding pawl is disengaged when lower, lifting pawl is set for tripping. Safety feature of spring action eliminates danger of accidentally tripping.

FIGURE 101

Double acting mechanism, of 15 ton capacity with foot lift. Designed with shorter fulcrum center to compensate for loss of lift on upward stroke, assures speed and ease of operation.



FIGURE 1-D

FIGURE 517-B

FIGURE 514-MT

Single acting, automatic ratchet lowering jack with foot lift. Of 5 ton capacity, it is a sturdy, dependable jack designed for general lifting service in mining, industrial and construction work. Special feature permits rack bar to be lowered instantly when load is removed from the head. For rerailing mine locomotives and cars, bracing cutting machines and mine track maintenance.

FIGURE 2 X 10

Bell bottom screw jack is safe, sturdy, and easy to operate. One piece steel screw has drop forged head and serrated steel top. Base is extra heavy, ribbed at throat and solid, to protect inner mechanism. Available in models from 10 to 20 ton capacity as listed in the table on next page.

Safe and dependable, recommended for supporting mine roofs, cross timbering and protection of working face areas, and also for positioning mine machinery. Screws are of high quality steel and accurately machined for rapid, positive action for one-man operation. Can be furnished with ball and socket head and also special heads.

FIGURE MR-160

Jack fittings coupled with standard 2" pipe, can be easily operated by one man and offer many advantages. Permits on-the-job cutting of pipe, to fit the required height, and is quickly assembled with the top and base fittings to make a jack for the job. Eliminates the necessity of stocking jacks in a variety of sizes. Standard 2" pipe can be used with MR-80, 8 ton capacity, extra strong 2" pipe is recommended for the 16 ton model.

FIGURE MR-16

Designed for the same applications as the Figure MR-160, but has standard square columns for use where uniform heights are required. Complete jacks available in heights from 30" to 72" in closed position. Screw jack provides raising head 15" more.

SPECIFICATIONS

Figure	Capacity		Raise	Base	Head	Foot Lift Weight	
	Tons	Height				Height	Pounds
117	15	22"	13"	6 1/2x11"	3 x 3"	2"	66
*117-A	15	22"	13"	6 1/2x11"	3 x 3"	2"	46
217	15	16 1/2"	7 1/2"	6 1/2x11"	3 x 3"	2"	52
617	15	28"	18 1/2"	7 x 12"	3 x 3"	2"	75
101	15	22 3/4"	13"	—	—	—	60
1-D	15	22"	13"	6 1/2x10 1/2"	3 x 3"	2"	60
1-A	15	22"	13"	6 1/2x11"	3 x 3"	2"	58
6-A	15	28"	19"	7 x 12"	3 x 3"	2"	73
517-B	15	11"	5"	6 1/2x10 1/4"	—	2"	45
*517-BA	15	11"	5"	6 1/2x10 1/4"	—	2"	31
514-MT	5	14"	7 1/2"	5 1/4x 7 3/4"	2 1/2x2 3/4"	1 1/2"	31
516-MT	5	16"	9 1/2"	5 1/4x 7 3/4"	2 1/2x2 3/4"	1 1/2"	34
521-MT	5	21"	14 1/2"	5 1/4x 7 3/4"	2 1/2x2 3/4"	1 1/2"	41
(Bell Bottom)							
1 1/4x6"	10	8 3/4"	3 1/2"	5" Diam.	3 1/8" Diam.	—	9
1 1/2x8"	12	10 1/4"	5"	6"	3 1/8"	—	14
1 3/4x10"	16	13 1/2"	7 1/2"	6 3/4"	3 7/8"	—	21 1/2
2x10"	20	13 3/4"	7"	6 3/4"	3 7/8"	—	25

*Aluminum Alloy Housing.

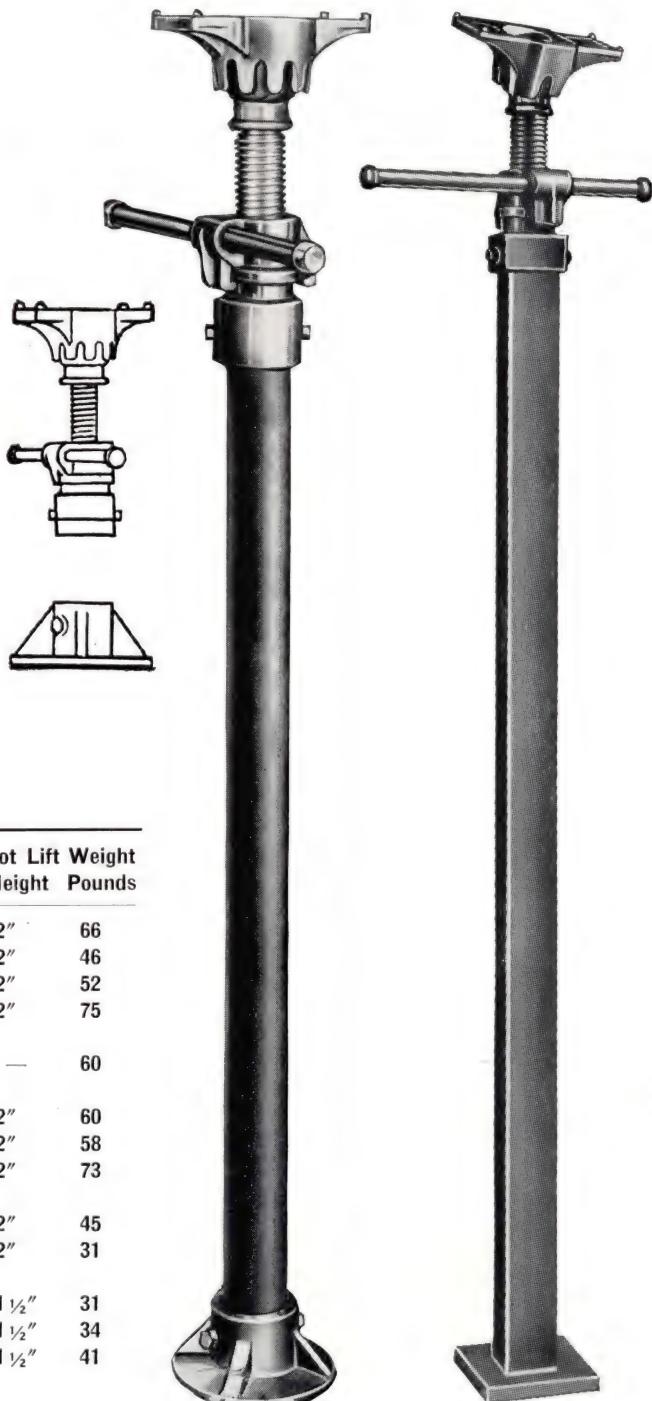


FIGURE MR-160

FIGURE MR-16



RAIL BENDERS

FIGURE 130 — JACK TYPE

Simple in construction and easy to attach to the rail, one man can bend any rail, cold, using a 25 ton or 35 ton jack. With this efficient tool, stock rails, guard rails and turnout rail bends can be made in the field. It consists of a steel hook, one end of which fits over the ball of the rail, the other end sitting on the cap of the jack. The base of the jack is seated against the side of the rail. With the hook firmly holding a section of rail, the force applied to the jack by power on the lever bar, bends the rail.

WEIGHTS

Steel Hook	130 lbs.
Special 25 ton Jack	40 lbs.
Special 35 ton Jack	49 lbs.

FIGURE 105 — JIM CROW TYPE

A practical and efficient rail bender for use with rails up to 100 lb. section. It is made in six sizes for bending various size rails:

No. 0—16 lb. rail No. 3—45 to 65 lb. rail
No. 1—16 to 25 lb. rail No. 4—65 to 85 lb. rail
No. 2—25 to 45 lb. rail No. 5—85 to 100 lb. rail



FIGURE 130



FIGURE 105

TRACK LINERS

FIGURE 106-B

These heavy-duty, husky maintenance tools are rapidly replacing large lining crews. It is possible for a 3-man crew to align more rail than eleven men using standard aligning bars. Constructed of drop forged, heat-treated alloy steel, withstands rough handling and requires no maintenance.



The liner is located in position ready for the first pull. Front end is pointed and wedge-shaped permitting liner to be easily positioned.

With this tool, a 3-man crew can align rail up to 112 lbs., and with a 5 man crew, heavy rail from 131 lbs. and up. In operation, liners do not raise the track, no digging is necessary at the ends of the ties, and to clear trains, bars are removed leaving the liners in position.



Liner at the end of first pull. Since this is gravel ballast the extent of the movement at the end of the ties does not show complete movement.



TRACK BOLT TABLE

Bolt Size	Average No. per 200 Lb. Keg	Kegs per Mile Using 30' Rails	Weight per Yard of Rail, Lbs.
1/2 x 1 1/2	1058	1.36	12 to 16
1/2 x 1 3/4	1000	1.44	12 to 16
1/2 x 2	948	1.52	20
1/2 x 2 1/4	901	1.60	20 to 25
1/2 x 2 1/2	858	1.67	25
5/8 x 2 1/2	520	2.76	30 to 35
5/8 x 3	476	3.02	30 to 35
3/4 x 3	293	4.92	40 to 45
3/4 x 3 1/4	282	5.09	45 to 50
3/4 x 3 1/2	272	5.29	50 to 60
3/4 x 3 3/4	263	4.94	65 to 70
3/4 x 4	254	5.12	70 to 75
3/4 x 4 1/2	238	5.46	70 to 75
3/8 x 4 1/2	228	6.3	75 to 85
7/8 x 3 1/2	185	7.03	80
7/8 x 4	173	7.52	80
7/8 x 4 1/4	168	7.74	80 to 85
7/8 x 4 1/2	163	7.98	80 to 90
7/8 x 5	150	9.5	80 to 90
7/8 x 5 1/2	145	9.8	90 to 110
7/8 x 6	140	10.2	90 to 110
1 x 4	124	10.49	85 to 100
1 x 4 1/2	117	11.11	85 to 100
1 x 4 3/4	114	11.40	85 to 100
1 x 5	111	11.70	85 to 100
1 x 5 1/4	102	12.1	90 to 110
1 x 5 1/2	100	12.7	100 to 110
1 x 5 3/4	96	13.1	100 to 110
1 x 6	92	15.5	130 to 135
1 1/16 x 5 1/2	98	15.2	110 to 135
1 1/8 x 5 1/2	96	15.3	130 to 135
1 1/8 x 6	79	17.1	130 to 135
1 1/8 x 6 1/2	74	17.6	130 to 135



Standard track bolts are of button head, oval neck design, fitted with square nuts. Bolt head and neck are forged steel with U. S. Standard rolled threads, free-fit style. Nominal diameter specified as bolt size is the over-all thread diameter. Length is measured from under the head to the extreme end of bolt.

Track bolt nuts are commonly made to the American Standard heavy unfinished square design, with or without crown or chamfer.

Necessary new, first quality track bolts and nuts can be furnished with all Foster rail shipments when ordered. Immediate shipments can be made from stock of every standard size of bolt in any quantities to meet your requirements. Standard packing is approximately 200 lbs. per keg.

ANGLE BARS AND SPLICE BARS

Foster stocks bars at all times in standard punching and in blanks which can be punched for all rail sections from 8 to 155 lb. and also for crane rails. Refer to Foster Rails Catalog 575.



FIGURE 3-W



FIGURE 5-W

NUT LOCKS

FIGURE 3 and 5

Oil tempered and tested, carbon steel nut locks are available to fit all sizes of standard track bolts. Regularly stocked in medium weight, broad design and heavy duty patterns.



CUT TRACK SPIKES



Cut track spikes consist of a body approximately square, with the head forged at the top end, and a wedge-shaped point cut at the bottom end. They are manufactured from hot rolled steel bar stock approximately square in section and are made in accordance with American Railway Engineering Association standards. Track spikes are measured under the head to the cut end. Foster track spikes are manufactured to meet the requirements of standard A.R.E.A. and A.S.T.M. specifications. When ordering, check that size of spike conforms to the weight of rail and thickness of ties to be used. A safe rule is to select a spike at least $1\frac{1}{2}$ " and not more than 1" short of the thickness of the tie. Immediate shipments can be made from stock of all standard sizes of track spikes, in any quantity. Standard packing is approximately 200 lbs. per keg.

SCREW TRACK SPIKES



FIGURE 307

Screw track spikes are used principally for securing tie plates on trestles and special installations and consist of a tapered square head, a round collar or shoulder, and a round body threaded to a comparatively coarse pitch. The square head is designed to receive a socket wrench for turning the spike into the tie. Manufactured from hot rolled bar stock, head and collar is hot forged and threads are hot rolled. Foster screw spikes conform to A.S.T.M. specifications and are stocked in sizes $\frac{7}{8}$ " x 6" and $\frac{7}{8}$ " x $6\frac{1}{2}$ ".

TRACK SPIKE TABLE

Size Measured Under Head	Average No. per 200 Lb. Keg	Kegs per Mile of Track Based on 24" center to center of Tie, 4 Spikes to a Tie	Weight per Yard of Rail, Lbs.
$\frac{5}{16} \times 2\frac{1}{2}$	2050	5.15	12 to 16
$\frac{3}{8} \times 2\frac{1}{2}$	1470	7.18	12 to 20
$\frac{3}{8} \times 3$	1270	8.32	12 to 20
$\frac{3}{8} \times 3\frac{1}{2}$	1135	9.30	12 to 20
$\frac{7}{16} \times 3$	920	11.48	16 to 20
$\frac{7}{16} \times 3\frac{1}{2}$	810	13.05	16 to 20
$\frac{1}{2} \times 3$	700	15.10	20 to 30
$\frac{1}{2} \times 3\frac{1}{2}$	638	16.55	20 to 30
$\frac{1}{2} \times 4$	550	17.20	20 to 30
$\frac{1}{2} \times 4\frac{1}{2}$	565	20.90	30 to 40
$\frac{1}{2} \times 5$	460	23.00	30 to 40
$\frac{9}{16} \times 4\frac{1}{2}$	408	25.80	40 to 60
$\frac{9}{16} \times 5$	365	29.90	40 to 60
$\frac{9}{16} \times 5\frac{1}{2}$	335	34.40	65 to 100
$\frac{5}{8} \times 5$	286	40.40	75 to 100
$\frac{5}{8} \times 5\frac{1}{2}$	264	43.70	75 to 130
$\frac{5}{8} \times 6$	244	47.30	75 to 130
$\frac{5}{8} \times 6\frac{1}{2}$	224	51.00	100 to 130

BOAT SPIKES



FIGURE 308-S

Foster stocks include: $\frac{3}{8}$ " x 8", $\frac{3}{8}$ " x 9", $\frac{3}{8}$ " x 10", $\frac{1}{2}$ " x 9", $\frac{1}{2}$ " x 10", and $\frac{1}{2}$ " x 12".

DRIVE DOWELS

Drive dowels prevent splitting in ties and bridge timber and are economical fasteners for building up laminated wood sections for platforms, crossings and docks. Basically a twisted steel pin with spirally grooved ridges its entire length, and lead of spiral thread is sufficient to permit driving manually into pre-bored hole in tie. Dowel rotates under driving pressure and timber is protected against splitting through its entire width. Available in sizes $\frac{1}{4}$ " diameter x $2\frac{1}{2}$ " long, to $\frac{1}{2}$ " x 7".

WOOD TIES



Pressure creosoted ties are recommended for installation in all permanent track and can be supplied to meet A.R.E.A. specifications.

Ties for standard gauge track are normally made 8' or 8'-6" long and 6" or 7" thickness, and in widths to correspond to width of tie plates being used. Ties can be furnished to meet your specific requirements for secondary, siding, yard and industrial tracks and also for narrow gauge.

If desired, we can recommend tie specifications drawn up by experienced timber engineers to meet specific needs. When ordering, specify rail section used and frequency and speed of traffic.

ANTI-CHECKING TIE IRONS



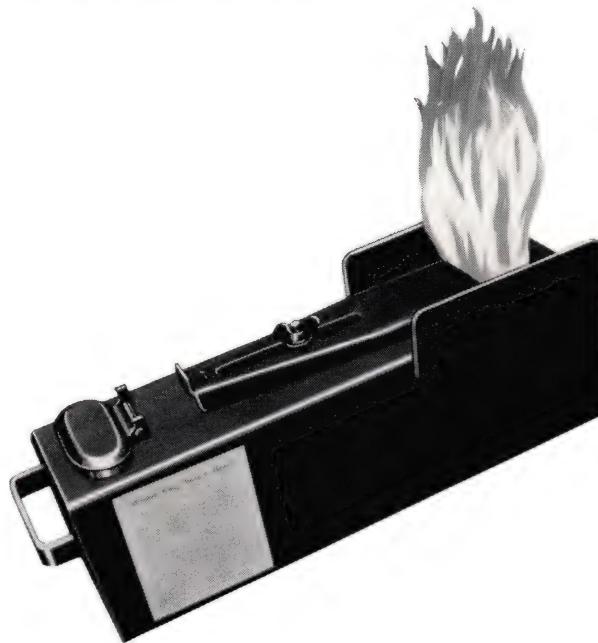
FIGURE 311

"S" irons driven into the end section, retard splitting and greatly lengthen the life of wood ties and lower maintenance and replacement costs. Available in 3, 3½, 4, 4½, 5, 5½ and 6" lengths.

TIE PLUGS

FIGURE 310

Creosoted wood tie plugs are inexpensive, easily driven to plug old spike holes, greatly prolong the life of wood cross ties.



SWITCH POINT HEATERS

FIGURE 16

The switch point heater is an inexpensive, kerosene-burning snow melter. Service records on many different railroads, under widely varying conditions, prove it to be fully effective in keeping switches and slips free from snow and ice during all severe storms. It is easily installed between the ties, under the switch points, and easily maintained and low in fuel cost. Save their original cost over manual snow removal — in one severe storm.



TRACK TOOLS

The standard track tools illustrated are representative of the complete tool line carried in Foster stocks at all times. If the specific tool you need is not listed, send us your requirements. We may be able to ship immediately from stock.



**FIGURE 700 — ADZES
FULL HEAD and RAILROAD**

Available in two sizes, 4" x 8" blade, 11" overall; and 4" x 9" blade, 12" overall; both made to American Railway Engineering Association plan 12. Railroad Adze with full head and 5" x 5 $\frac{5}{8}$ " blade, 9 $\frac{1}{4}$ " overall length made to A.R.E.A. plan 12-A-42.



FIGURE 5 — RAILROAD SPIKE MAUL

Pittsburgh or Bell Pattern, made to American Railway Engineering Association plan 3, design 2, of open hearth steel. 15" long with 1 $\frac{1}{4}$ " and 1 $\frac{5}{8}$ " faces, weighs 10 lbs. Also available as Figure 4, made to A.R.E.A. plan 3, design 1; 14" long with 1 $\frac{5}{8}$ " faces, weighs 10 lbs.



**FIGURE 6
RAILROAD SPIKE MAUL**

Standard pattern, available in three sizes:

- 6 lb. — 11" long
- 8 lb. — 12" long
- 10 lb. — 12 $\frac{3}{4}$ " long.



**FIGURE 15 — BLACKSMITH SLEDGE
(Double Face)**

Made to American Railway Engineering Association's plan 13 in sizes 6, 8, 10, 12 and 16 lb. Also available in 2, 2 $\frac{1}{2}$, 3 and 4 lb. standard models.



FIGURE 1 — TRACK CHISEL

Made according to American Railway Engineering Association plan 16, design 1. Open hearth steel, 9 $\frac{1}{4}$ " long, weighs 5 $\frac{1}{4}$ lbs.



FIGURE 1-Q — TRACK CHISEL

Special alloy steel of extreme hardness makes this a rugged chisel — developed for modern track work and made according to American Railway Engineering Association plan 17, design 2. Chisel is 10 $\frac{1}{2}$ " long, weighs 5 $\frac{1}{2}$ lbs.



**FIGURE 40
BLACKSMITH ANVIL CHISEL**

Cold chisels available in three sizes:

- 2 lb. — 6" long, 1 $\frac{1}{4}$ " bit
- 3 lb. — 7" long, 1 $\frac{1}{2}$ " bit
- 5 lb. — 8" long, 1 $\frac{3}{4}$ " bit



**FIGURE 51
SINGLE-END TRACK WRENCH**

Made to American Railway Engineering Association plan 4 or 4-A in six sizes:

3/4" bolt x 30" long	1 1/8" bolt x 48" long
7/8" bolt x 36" long	1 1/4" bolt x 48" long
1" bolt x 42" long	1 3/8" bolt x 54" long



**FIGURE 512
DOUBLE-END TRACK WRENCH**

Made to American Railway Engineering Association plan 4 or 4-A in five sizes:

3/4" x 7/8" bolt x 36" long
7/8" x 1" bolt x 42" long
1" x 1 1/8" bolt x 48" long
1 1/8" x 1 1/4" bolt x 48" long
1 1/4" x 1 3/8" bolt x 48" long



FIGURE 34-B — TIE TONGS

For one man use, made to American Railway Engineering Association plan 7, weigh approximately 10 lbs.



**FIGURE 56
SPIKE PULLER**

Made according to American Railway Engineering Association plan 9, 4 ball style, weighs 2 1/2 lbs.



FIGURE 35 — RAIL FORK

Made to American Railway Engineering Association specifications, weighs 13 lbs.



FIGURE 39 — RAIL TONGS

Tongs weigh approximately 18 lbs.



FIGURE 39-A — TIE TONGS

Two man operation, tongs weigh approximately 16 lbs.



TRACK LEVELS AND GAUGES



**FIGURE 100
INSPECTOR'S LEVEL AND GAUGE**

A complete instrument and most useful for maintenance-of-way officials for inspection purposes, combines all the needs of track inspection in one easily handled tool. Furnished in natural wood finish and all metal parts are solid brass. Features include a Track Level, Track Gauge with guard rail lug, Master Gauge for testing other gauges, Elevation Scale and a Wheel Gauge for measuring back to back of wheels. Instrument weighs only 5 pounds, is light, compact and convenient to use.



FIGURE 2 — TRACK LEVEL

Has adjustable spirit level.



FIGURE 3 — TRACK LEVEL

Has adjustable spirit level.



**FIGURE 500
GAUGE WITH GUARD RAIL LUG**

Wood center member of oak.



FIGURE 300 — SPOT BOARD

Manufactured to American Railway Engineering Association standard plan number 30-40. Can be supplied in 10, 12 and 14 foot lengths.



FIGURE 270 — TRACK LEVEL

Designed and built according to American Railway Engineering Association's plan 27-41.



FIGURE 119 — STEP LEVEL BOARD

Made from California redwood, has adjustable spirit level.



FIGURE 170 — TRACK GAUGE

A sturdy, durable, non-insulated gauge, made of extra heavy pipe, and all wearing parts are of steel and recessed to gauge over burred rails. Built to specifications of American Railway Engineering plan number 20-45.



FIGURE
80

FIGURE
31

FIGURE
32

FIGURE
32-A

FIGURE 32-A

LINING BAR — Diamond Point

Made to American Railway Engineering Association's plan 5 and available in three sizes:

$1\frac{1}{4}$ " x 60" long, weighs 18 lbs.

$1\frac{3}{8}$ " x 64" long, weighs 22 lbs.

$1\frac{1}{2}$ " x 66" long, weighs 26 lbs.

FIGURE 32

LINING BAR — Wedge Point

Can be furnished in seven sizes, largest of which are made to American Railway Engineering Association's plan 5.

1 " x 48"—wt. 10 lbs. Made to A.R.E.A. Plan 5

$1\frac{1}{8}$ " x 51"—wt. 12 lbs. $1\frac{1}{4}$ " x 60"—wt. 18 lbs.

$1\frac{1}{8}$ " x 54"—wt. 14 lbs. $1\frac{3}{8}$ " x 64"—wt. 22 lbs.

$1\frac{1}{4}$ " x 57"—wt. 16 lbs. $1\frac{1}{2}$ " x 66"—wt. 26 lbs.

FIGURE 31 — PINCH BAR

Available in nine sizes, three of which are made to American Railway Engineering Association's plan 5.

$\frac{3}{4}$ " x 24"—wt. 3 lbs. Made to A.R.E.A. Plan 5

$\frac{7}{8}$ " x 36"—wt. 6 lbs. $1\frac{1}{4}$ " x 60"—wt. 18 lbs.

1 " x 48"—wt. 10 lbs. $1\frac{3}{8}$ " x 64"—wt. 22 lbs.

$1\frac{1}{8}$ " x 51"—wt. 12 lbs. $1\frac{1}{2}$ " x 66"—wt. 26 lbs.

$1\frac{1}{8}$ " x 54"—wt. 14 lbs.

$1\frac{1}{4}$ " x 57"—wt. 16 lbs.

FIGURE 80 — STANDARD CLAW BAR

Made according to the American Railway Engineering Association's specifications, has a large heel. 60" bar weighs 28 lbs.

TRACK PICKS



FIGURE 307 — CLAY PICK

5 to 10 lb. models



FIGURE 309 — CONTRACTORS PICK

(Diamond Point) — 7, 8 and 9 lb. models



FIGURE 308 — TAMPING PICK

(V Tamper) — 7 and 8 lb. models



RAIL ANCHORS



FIGURE 301-U

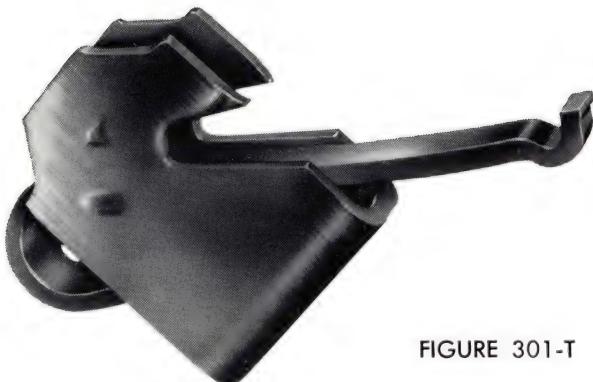
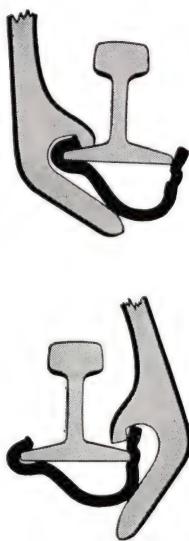


FIGURE 301-T

Designed to prevent rail creepage, these rail anchors are simple to apply. Providing a large bearing surface against tie, they eliminate undue cutting and wearing, thereby prolong tie life. Anchors will withstand severe service and can be easily removed from rail and applied again in other locations. For maximum protection, anchors should be applied from inside of rail.

FIGURE 301-U

One piece construction of round edge section, high carbon manganese steel, specially heat treated to make a tough ductile rail anchor. Easily applied by hooking to inside of rail base and forcing into place by pressing downward on the tool. The two notches provide a take-up feature, make this anchor serviceable for new rail and also for undersize or worn rail bases. To remove anchor, tool is applied to upstanding end, and tool forced down as shown at the left.

FIGURE 301-T

Forged from a special grade of carbon steel, properly tempered to provide rugged service, works exceptionally well on worn rail bases. To apply, clear sufficient ballast from crib and apply anchor on inside of rail base. Strike protruding loop a light blow to seat it, then give spring a sharp locking blow to lock hook on opposite edge of rail base. Standard spike maul can be used. To remove, tap hook until unlocked.

FIGURE 301-F

One piece design, simply constructed of heat-treated steel of a specially rolled tee section. This anchor may be applied to bear against tie, against the tie plate or against both. It is self locking, remains tight and effective. Apply anchor on inside of rail in contact with bearing surface of rail base. Drive into position with horizontal blows, until locking notch engages opposite edge of base. Use standard spike maul or sledge to apply.

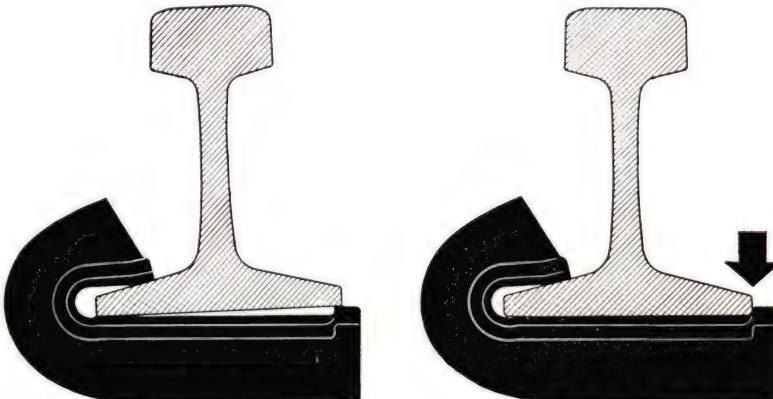
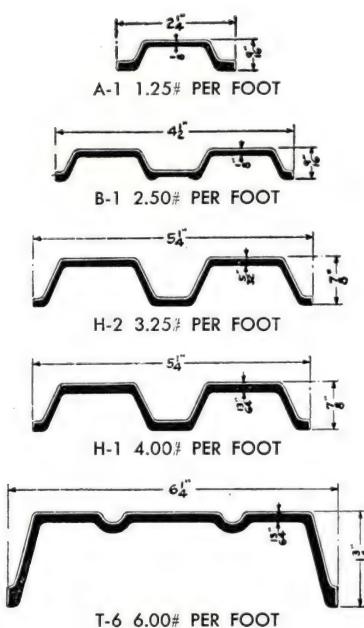


FIGURE 301-F

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RAILS • SWITCH MATERIAL • TRACK ACCESSORIES

TIE SECTIONS



The steel tie sections illustrated cover all the usual needs of mine track work. Section A-1 at the top is intended for use with 8 to 20 lb. rails with light equipment. Section B-1 is for heavier service, is recommended for use with 16 to 30 lb. rails. Section B-2 is for use with 30, 35 or 40 lb. rails. Section H-1 is intended for mine or industrial main haulage tracks, using medium weight equipment. It is well adapted to portable track. Section T-6 is for use with 40 to 70 lb. rails, for the heaviest type of mine haulage.

FIGURE 4

A serviceable tie of the bolted type made to fit any rail and to suit any gauge of track. Tee-head bolts are used with rolled steel clips designed to take all side thrust.

FIGURE 7

This tie will fit any rail or gauge of track. With this arrangement of clips, ties can be put into, or taken out of existing track without springing the rails. The double clip feature permits the tie to be used as a "joint" tie.



FIGURE 4



FIGURE 7

FIGURE 9

This is an excellent design of main line tie, with both stationary clips placed on the outside of the track. It can also be furnished as Figure 10 with one stationary clip outside and one inside the track for installation in existing track. The ends of either design may be cupped to anchor the track against lateral movement. The bolted clips transmit all side thrust directly to the tie, the tee headbolts receiving no sidewise strains.

Other designs of steel ties are available, such as Figure 5 which is intended for "balling" the extension rail. The shape and location of the stationary clip holds the "balled" rail in place without the need of any other clamp. A quarter turn of the rotary clips securely locks the rail in place.

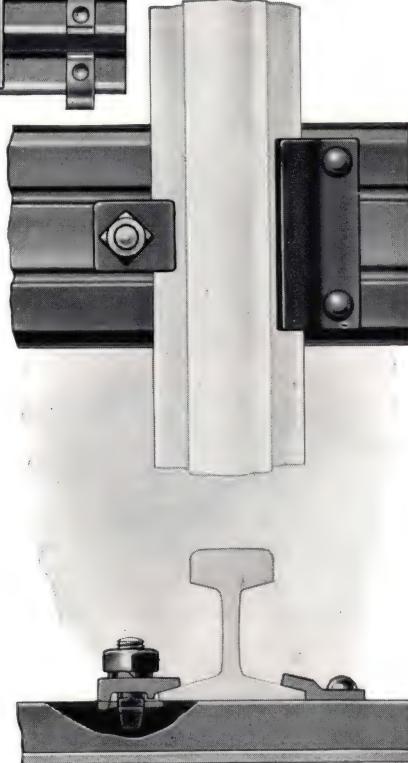


FIGURE 9



TURNTABLES

Figures 1A, 2A and 3A, designed for one-man operation, are simple in design and practically dirt-proof. All-steel welded construction makes them stronger than cast turntables and at lower cost. The tables turn easily on hardened steel balls which roll in accurately machined raceways and are held in position by a steel separator. Center pin keeps the top in perfect alignment. Latches are provided which hold the top in position and are placed so that they can be used to lift the top for inspection and lubrication. Spring operated indexing latches can also be furnished. Tables illustrated are of 5 ton or 10 ton capacity and can be furnished in sizes from 3' to 8' diameters. Special tables can be made for use with any size rail, in any gauge and up to 15 ton capacity when required. When ordering, specify number of tables required, the design, gauge of track, size of rail to be used and wheel base of cars or the diameter of tables. Please advise if flange of wheels runs on outside of rail — otherwise it is assumed flange runs on inside as standard equipment.

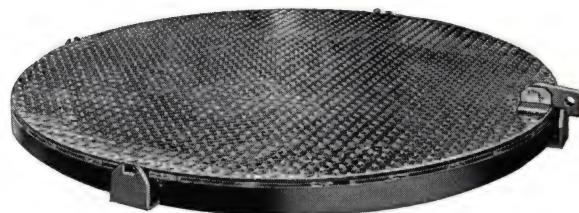


FIGURE 1-A

Flat top design has non-skid steel plate. Latch locks at 90°. Table is 3 $\frac{1}{4}$ " deep, overall.



FIGURE 2-A

Raised rail, single track design has single latch, with locking receptacles at 90°. These can be spaced at any angle to meet specific needs. Table is shown without pit ring which can be furnished when desired.

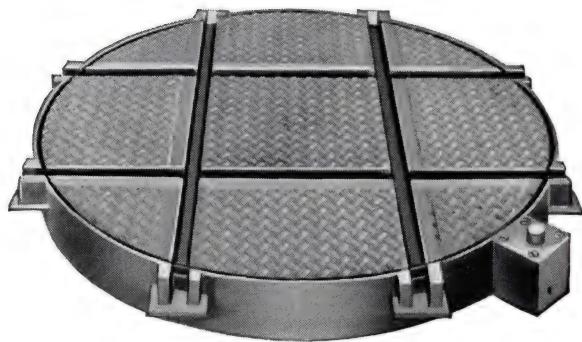


FIGURE 4-C

This flush-type, grooved top table illustrated above, has crossed tracks and turns easily on a simplified system of rollers. Friction is reduced to a minimum and little lubrication and maintenance is required. Interior is shielded from dirt and a solid steel band surrounds outside of table, which permits concrete to be poured around the table without the necessity of special forms. Available in 4' to 8' diameters, capacity 5000 lbs. unless otherwise specified. Requires 5 $\frac{1}{2}$ " floor depth.



FIGURE 3-A

This table is similar to Figure 2-A but has raised rail, cross tracks. Latch receptacles are normally at 90° but can be placed at any angle. Pit ring can also be furnished when specified.

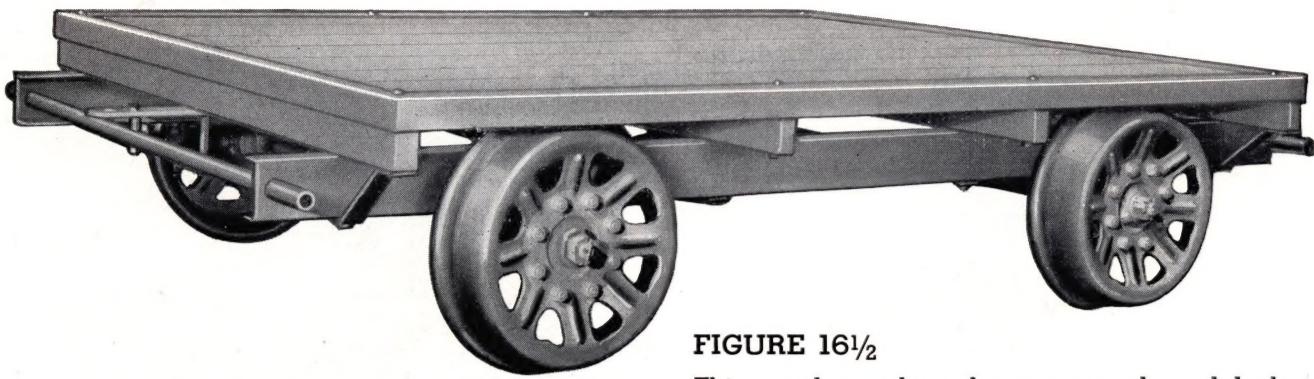
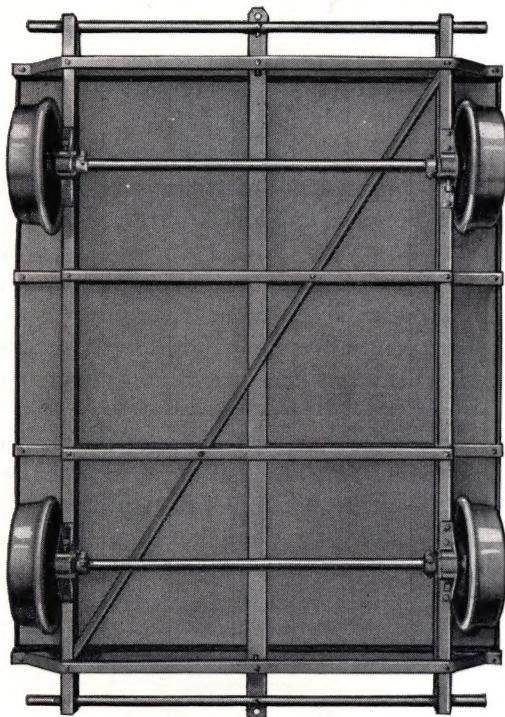


FIGURE 16 1/2

This popular push car has a seasoned wood deck with steel angle protection on all sides. The body is rigidly trussed and braced, and draw bar runs entire length as is shown in illustration of underside of car. Frame is all steel bolted channel and lift handles are provided at both ends. Car is equipped with Timken roller bearings which roll on hardened inner and outer races, eliminating all bearing wear on the axles. Each housing has two bearings, greatly increasing the capacity of the car without adding extra weight. Both ends of the housing have annular grooves to retain lubricant and axle set collars provide for adjustment of side thrust and wheel alignment. Deck is 5'-7" wide and 7' long, and rides 18" over rail. Car is 100" long overall, weighs 640 lbs. and has 5 ton capacity. Wheels are 16" x 5/16", cold pressed riveted steel, two are insulated and two are bronze bushed.

Special cars can be furnished with wood or steel decks to meet your requirements, and in any size, for any gauge track and from 1 to 15 ton capacity. Optional equipment includes 4 wheel brakes with removable pipe lever, couplers, special wheels, differential axles and dump sills.



(Underside of Figure 16 1/2)

FIGURE 512-K

This heavy duty car has a steel deck and is recommended for use in heavy industrial and construction work. It is also equipped with Timken roller bearings similar to Figure 16 1/2 above, and wheels are of 16" diameter, solid chilled iron. Car weighs 1810 lbs. and has a capacity of 15 tons. Steel plate deck is 1/4" thick, 5'-8" wide and 8' long. This model can also be furnished with wood deck or without deck plate for use in track laying operations.



FIGURE 512-K



TRACK DRILLS



FIGURE 500-B

A dependable, light weight track maintenance tool, designed for one or two-man operation. It is equipped with bronze bushed bearings, forged steel gears and machine cut teeth, and provides an economical method of drilling all sizes and types of rail. Special safety and adjustable features permit accurate drilling control and instant emergency detachment from rail. It is easily and quickly removed from the track by lifting the hook and folding the tool back, leaving drill and bit in position. Drilling can be resumed immediately without the necessity of resetting. Drill with standard double overclutch hook is illustrated in drilling position on the rail. Other types of hooks can be furnished to meet your specific requirements.

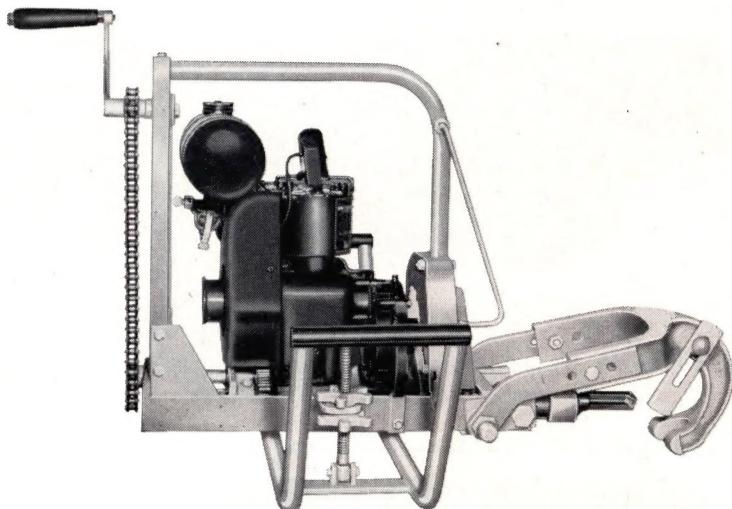


FIGURE 503

A carefully engineered track maintenance tool, powered by a compact 1 1/2 horsepower, 4-cycle, air cooled gasoline engine. It is very economical, and uses less than one quart of gasoline for an average 8-hour work shift. Its compact design and light weight permit it to be easily stored in tool sheds or in confined spaces and may be operated either inside or outside of rails and also between the rails at switches. Adjustment is provided so that drill bit can be raised or lowered for fast, accurate drilling of all types and sizes of rail. 1 1/8" holes can be drilled in standard 90 lb. rail in 30 seconds. For safety, drill can be easily and quickly removed from track by simply releasing the special overclutch hook.

RAIL PUNCH

FIGURE 501

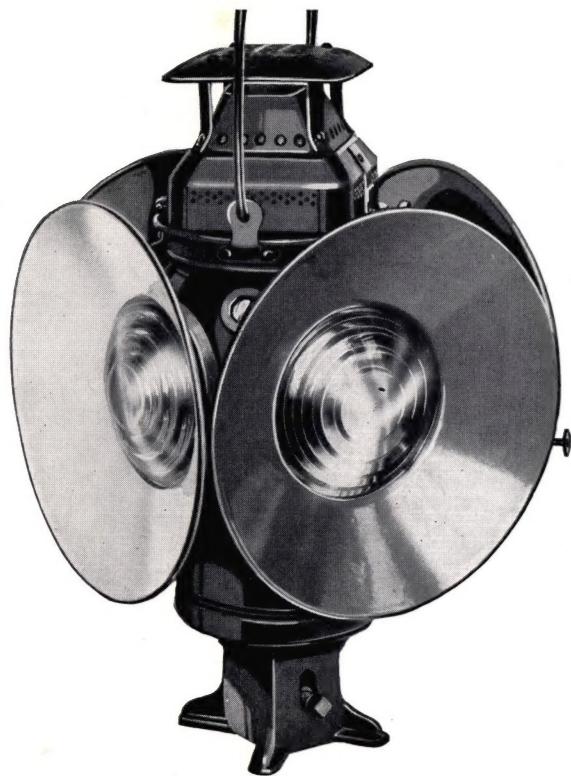
Self contained, portable tool punches holes through the web of rails by using the energy created by discharge of a blank cartridge. Easily operated by assembling punch and die in the frame, placing tool over the rail at the desired location. A blank cartridge is inserted in the breech unit and discharged. The punched hole is clean, free of burrs, with practically no taper and requires no reaming to be the exact size required. Holes up to 3/4" diameter can be punched in rails from 12 to 40 lb., particularly suited for use on mine rails.

DRILLS AND BITS

Foster stocks include drills and bits in all types and sizes for drilling rail and also accessories to meet your specific maintenance requirements.



FIGURE 501

**FIGURE 12-T**

Railroad standard, with day targets, features non-sweating, balanced draft ventilation, has wind-proof lamp body effectively and permanently sealed against drafts. Hinged and hasp fastened at the top, heavy steel body and square vent cone open easily for servicing burner and oil fount. After assembly, all parts are heavy terne metal coated for protection against rust and to seal joints and seams.

Normally equipped with 31 ounce oil fount. Lens sizes: 4", 4 1/8", 4 1/2", 5" and 5 3/8". Can also be supplied as Figure 12 without day targets.

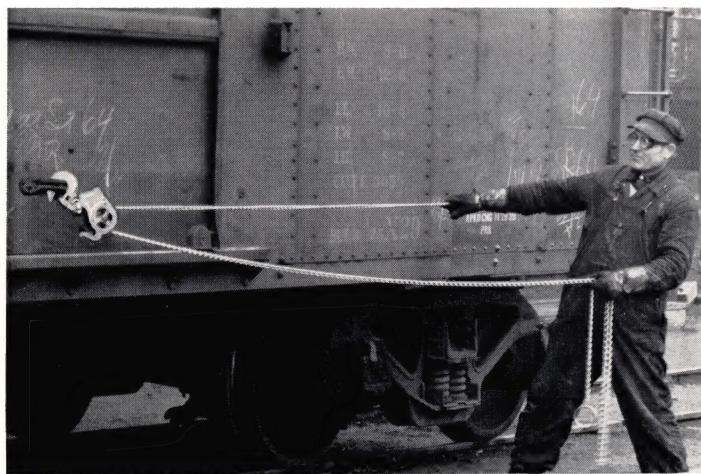
HOPPER CAR WRENCH**FIGURE 100-L**

This safety tool is designed for fast, positive opening of drop bottom cars and reduces chance of injury from spinning wrench handles. Sturdily constructed of high tensile alloy castings, it has a ball bearing reversible ratchet and an exclusive

two-way pawl mechanism that assures positive action even on frozen or stuck spindles. Standard opening will fit M.C.B. 2" square spindles, also square reducing sockets can be supplied to fit 1 1/2" or other spindle sizes.

CAR DOOR OPENER**FIGURE 101-N**

This tool enables one man to open or close balky boxcar doors safely, eliminating the necessity of having several men do the same job, using makeshift and sometimes hazardous methods. The operator secures hook to the car end, then hangs opener hook on the car door handle and stretches chain tightly, by pulling the ring end of the chain. Placing his hand at the middle of the stretched chain, the operator pulls away from the car with short motions taking up the slack after each pull.





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